

OKUMA BL-D AXIS DRIVES & DC-S1A, DC-S3A AXIS POWER SUPPLIES TROUBLESHOOTING GUIDE

Use camera to document drives (especially all the dip switches!) before you start. Make sure you leave machine configured as original after troubleshooting. Do not swap control cards, only swap whole drives for troubleshooting purposes. Generally, you can swap up or down one drive size ([30A](#) for a [50A](#) etc.). Exercise caution when troubleshooting. Lethal voltages are present in drive cabinets and on the drives. Make sure the DC bus is discharged and machine is powered off at source before swapping any drive.

BL-D Axis Servo Drive Troubleshooting:

- Main machine power on, CNC control NOT on, some drives have Green LED lit,
 - No lit Green LED on suspect drive. Replace drive.
 - Any Red Alarm LED lit before CNC control started, replace drive.
- After CNC control started, control comes up with axis alarm, no axis will move.
 - All drives have LV LED lit: Check [DC-S1A](#) power supply and circuit breakers on all drives.
 - Only one drive has LV LED lit, verify by swapping drive to known good location. Replace drive.
 - One drive has IOCS or IOCM LED lit. Megger motor, if motor is OK then try replacing drive with known good drive.
- After CNC control started, machine runs, other axis move OK, Moving suspect axis causes E-Stop:
 - VR LED lit. Internal power supply defective. Replace drive.
 - IOCS or IOCM LED lit. Over current: only on rapids. Alarm resets. Maybe not drive, Call us for troubleshooting.
 - IOCS or IOCM LED lit. Over current: usually fatal. Megger motor, if motor is OK then replace drive with known good drive.
 - LV LED lit. Low Voltage. Check circuit breaker, Swap drive, Check [DC-S1A](#). Usually power supply is defective.
 - HV LED lit. High Voltage. Usually on rapids de-acceleration. Sometimes intermittent. Replace [DC-S1A](#) power supply.

DC-S1A, DC-S3A Axis Power Supply Troubleshooting:

- Blows circuit breaker, burnt circuit board or Green LED not lit. Replace [DC-S1A](#). Also check BL-D Axis drives to insure none have tripped their breaker. Replace BL-D drives that have tripped breaker, they probably toasted the power supply. Call us for troubleshooting.
- Axis drives have intermittent HV alarm. Replace [DC-S1A](#) with known good unit.

This guide is appropriate for:

BL-D30A	BL-D15A	BL-D50A	BL-D75A
DC-S1A	DC-S3A		BL-D150A